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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,347	09/07/2001	Takeshi Uchida	566.40319X00	4090

7590 05/08/2003

Antonelli Terry Stout & Kraus
Suite 1800
1300 North Seventeenth Street
Arlington, VA 22209

EXAMINER
SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
2813	7

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/869,347	Applicant(s) UCHIDA ET AL.	
	Examiner Laura M Schillinger	Art Unit 2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki et al ('095).

In reference to claim 1, Sasaki teaches a metal-polishing liquid material comprising an oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), a protective film forming agent (BTA etc...- Col.3, lines: 30-65), and a dissolution promoter for the protective film-forming agent (hydrogen peroxide) and water (Col.3, lines: 40-55)).

In reference to claim 2, Sasaki teaches further comprising at least one of an oxidizing agent (hydrogen peroxide) and water (Col.4, lines: 1-5).

In reference to claim 3, Sasaki teaches comprising the ingredient group consisting of the oxidizing agent (hydrogen peroxide and Col.4, lines: 1-10), the oxidized metal etchant

(amindosulfuric acid etc..- Col.4, lines: 1-10), the protective film forming agent (BTA etc...- Col.3, lines: 30-65) and the dissolution promoter in a divided state into two constituent elements not mixed.

In reference to claim 4, Sasaki teaches wherein the dissolution promoter is a surfactant (Col.12, lines: 50-55).

In reference to claim 5, Sasaki teaches wherein the surfactant is at least one of : esters (aqueous glycerine solution –Col.11, lines: 25-30); ethers (ethyleme glycol) (Col.12, lines: 50-55) see also (Col.12, lines: 27-36).

In reference to claim 6, Sasaki teaches wherein the dissolution promoter is a solvent in which the solubility of the protective film-forming agent is at least 25 g/liter (Col.11, lines: 25-30).

In reference to claim 7, Sasaki teaches wherein the solvent is a good solvent for the protective film-forming agent (Col.12, lines: 27-36).

In reference to claim 8, Sasaki teaches wherein the solvent is at least one of alcohols, ethers and ketones ethers (ethyleme glycol) (Col.12, lines: 50-55).

In reference to claim 9, Sasaki teaches wherein the amount of the solvent is smaller than 50g relative to 100 g of a total amount of the material (Col.11, lines: 25-30).

In reference to claim 10, Sasaki teaches wherein at least a part of the protective film-forming agent is solid having a mean particle size of at most 100 um (Col.11, lines: 25-65).

In reference to claim 11, Sasaki teaches further comprising abrasive grains (Col.11, lines: 25-26).

In reference to claim 12, Sasaki teaches a metal-polishing liquid which comprises an oxidizing agent (hydrogen peroxide) (Col.4, lines: 1-5), an oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), a protective film forming agent protective film forming agent (BTA etc...- Col.3, lines: 30-65), a dissolution promoter for the promoter (Col.3, lines: 40-55) for the protective film forming agent, and water (Col.4, lines: 1-5).

In reference to claim 13, Sasaki teaches wherein the dissolution promoter is surfactant (Col.3, lines: 43-55).

In reference to claim 14, Sasaki teaches wherein the dissolution promoter is a solvent in which the solubility of the protective film forming agent is at least 25 g/liter (Col.7, lines: 25-35).

In reference to claim 15, Sasaki teaches wherein at least a part of the protective film forming agent is solid, having a mean particle size of at most 100 um (Col.7, lines: 25-35).

In reference to claim 16, Sasaki teaches further comprising abrasive grains (Col.8, lines: 5-10).

In reference to claim 17, Sasaki teaches a method comprising a step of diluting the metal-polishing liquid material of claim 2 with a diluent (Col.4, lines: 1-5).

In reference to claim 18, Sasaki teaches comprising the step of diluting a metal-polishing liquid material comprising at least one ingredient of an ingredient group consisting of an oxidizing agent (hydrogen peroxide and Col.4, lines: 1-10), the oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), the protective film forming agent (BTA etc...- Col.3, lines: 30-65) and the dissolution promoter (Col.3, lines: 40-55), with an aqueous solution for dilution of at least one ingredient of the ingredient group (Col.4, lines: 1-5)

In reference to claim 19, Sasaki teaches a method comprises the step of mixing the following:

A first constituent element that contains at least one ingredient of an ingredient group consisting of an oxidizing agent (hydrogen peroxide and Col.4, lines: 1-10), an oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), a protective film forming agent (BTA etc...- Col.3, lines: 30-65) and a dissolution promoter for the protective film-forming agent(Col.3, lines: 40-55);

A second constituent element that contains at least one of the other ingredients of the ingredient group (Col.3, lines: 40-60);

A diluent (Col.4, lines: 1-5);

In any desired order.

In reference to claim 20, Sasaki teaches wherein the diluent is water or an aqueous diluent solution (Col.4, lines: 1-5).

In reference to claim 21, Sasaki teaches wherein a first constituent element that contains at least one ingredient of an ingredient group consisting of an the oxidizing agent (hydrogen peroxide and Col.4, lines: 1-10), an oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), a protective film forming agent (BTA etc...- Col.3, lines: 30-65) and a dissolution promoter for the protective film-forming agent(Col.3, lines: 40-55).

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In reference to claim 22, Sasaki teaches wherein the first constituent element further comprises the protective film forming agent (BTA etc...- Col.3, lines: 30-65) and a dissolution promoter for the protective film-forming agent(Col.3, lines: 40-55).

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In reference to claim 23, Sasaki teaches wherein in the mixing step, the oxidizing agent and the oxidizing agent containing mixture are kept at a temperature at most 40 °C (Col.13, lines: 5-15).

In reference to claim 24, Sasaki teaches wherein at least a part of the protective film-forming agent is solid, having a mean particle size of at most 100 um, and is dissolved or dispersed in the metal-polishing liquid in the mixing step (Col.9, lines: 20-25).

In reference to claim 25, Sasaki teaches a method comprising a polishing step of:

Applying the metal-polishing liquid of claim 12 to a polishing pad set on a platen (Col.8, lines: 30-40), and

Polishing the surface of an article to be polished with the polishing pad by moving the polishing pad and the surface of the article relatively to each other while keeping the surface of the article in contact with the polishing pad (Fig.1).

In reference to claim 26, Sasaki teaches further comprising a mixing step prior to the polishing wherein:

A first constituent element that contains at least one ingredient of an ingredient group consisting of an oxidizing agent (hydrogen peroxide and Col.4, lines: 1-10), an oxidized metal etchant (amindosulfuric acid etc..- Col.4, lines: 1-10), a protective film forming agent (BTA etc...- Col.3, lines: 30-65) and a dissolution promoter for the protective film-forming agent(Col.3, lines: 40-55);

A second constituent element that contains at least one of the other ingredients of the ingredient group (Col.3, lines: 40-60);

A diluent (Col.4, lines: 1-5);

In any desired order.

In reference to claim 27, Sasaki teaches wherein the dissolution promoter is a surfactant (Col.12, lines: 50-55).

In reference to claim 28, Sasaki teaches wherein the surfactant is at least one of : esters (aqueous glycerine solution –Col.11, lines: 25-30); ethers (ethyleme glycol) (Col.12, lines: 50-55) see also (Col.12, lines: 27-36).

In reference to claim 29, Sasaki teaches wherein the dissolution promoter is a solvent in which the solubility of the protective film-forming agent is at least 25 g/liter (Col.11, lines: 25-30).

In reference to claim 30, Sasaki teaches wherein the solvent is a good solvent for the protective film-forming agent (Col.12, lines: 27-36).

In reference to claim 31, Sasaki teaches wherein the solvent is at least one of alcohols, ethers and ketones ethers (ethyleme glycol) (Col.12, lines: 50-55) .

In reference to claim 32, Sasaki teaches wherein the amount of the solvent is smaller than 50g relative to 100 g of a total amount of the material (Col.11, lines: 25-30).

In reference to claim 33, Sasaki teaches wherein at least a part of the protective film-forming agent is solid having a mean particle size of at most 100 um.

In reference to claim 34, Sasaki teaches further comprising abrasive grains (Col.8, lines: 5-10).

In reference to claim 35, Sasaki teaches a method comprising a step of diluting the metal-polishing liquid material of claim 1 with a diluent (Col.4, lines: 1-5).

In reference to claim 36, Sasaki teaches wherein the diluent is water or an aqueous diluent solution (Col.4, lines: 1-5).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (703) 308-6425. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W Whitehead, Jr. can be reached on (703) 308-4940. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

LMS
April 30, 2003